

Appln. No. 10/767,011
Response to Final dated October 19, 2006
Reply to Office Action of July 6, 2006

Interview

The October 17, 2006 telephone interview with Examiner Huson is acknowledged and is believed to have significantly advanced the prosecution of this Application. During the interview, it was discussed by the Applicants how Applicants' claimed processes of Claims 7 and 12 were distinguishable from the processes of the Ackeret and Savonuzzi references, respectively, as also discussed in more detail below.

The Examiner explained her interpretation and application of the Ackeret reference and suggested an amendment to Claim 7 along the lines of the amendment shown above to more clearly highlight the difference between Applicants' two step molding process and the sections of Ackeret relied upon in the rejection. As discussed in more detail below, the Savonuzzi reference was discussed and explained insofar as its inherent differences from Ackeret and from Applicants' claimed process according to Claim 12.

Regarding the Amendments

The amendments to Claim 7 are essentially editorial in nature (i) to provide appropriate punctuation in lines 4, 5 and 6 and (ii) to clarify in section (c) in line 6 that the edge covering component molded on in the second molding step is molded onto the first step substrate component (and the edges and edge surface of the surface material). An amendment along these lines was suggested by the Examiner to clarify that the substrate and edge-covering components cannot be parts of the same molding step. This amendment is based on multiple disclosures in the application as filed of molding or adhering the edge-covering component onto substrate. See for example page 2, lines 31 – 32; page 14, lines 28 – 29; page 16, lines 1 – 5; and page 21, lines 6 – 7. Therefore, it is clear that this amendment adds no new matter.

Based on discussion with the Examiner it is believed that this amendment can be entered after final rejection in that it presents no new issues for consideration. The amendment presented here can be viewed as complying with a form requirement set forth in the previous Office Action and the Interview. Also, depending upon final review of the text, it is believed that the amendment is likely to put the Claims in condition for allowance. In the alternative, the amendment should be entered to present the rejected claims in better

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form for consideration on appeal. The amendment was not presented earlier since it is in response to new rejections made in the last Office Action.

In the event the amendment is not entered, it is Applicants' position that the same distinctions over Akeret as discussed below are fully applicable without the proposed amendment.

Regarding the Invention and the Grounds for Rejection

As described in more detail in the present application, the present invention provides an improved process for obtaining molded articles with a surface area of metal, wood or other semi-rigid sheet material that is attractively, uniformly and durably adhered to the molded article. According to Applicants' invention the surface layer is adhered to a molded substrate component in a molding process by molding on a second, relatively thin edge-covering layer and/or using an adhesive layer having a second, protective backing layer. The edge-covering layer, when used, is applied in a second molding step after first molding a substrate plastic with a surface area layer.

Claims 7 through 9 and 15 through 16 are rejected under 35 USC 102(b) as being anticipated by USP 6,132,384 to Akeret et al. ("Akeret"). Upon review, it can be seen that Akeret teaches a somewhat similar but simpler, single step molding process where a plastic substrate component is molded with a metal surface area. The key aspect of Akeret's invention is the use of "attachment means" connected to and lying in a plane below the the surface metal, which attachment means are covered by and embedded in the substrate to anchor the metal surface. Akeret also notes that edges of the metal surface can be cut at a slant in a manner that allows the plastic substrate resin to cover them (up to the thickness of the metal surface layer) and help anchor the metal surface.

In the Office Action the Examiner maintained that Akeret shows a first, substrate molding step at Column 4, lines 54 – 56 and a second, edge-covering molding step at Column 4, lines 56 – 57 and Column 5, line 66 through Column 6 line 2. The section cited by the Examiner as supposedly showing the first and second molding steps (col. 4, lines 54 – 57) instead refers to first and second mold halves that are both filled in the single molding step:

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"The upper female mold 32 allows the outer face 21 of the side 2 to be molded whereas the lower female mold 30 allows the inner face of this side to be molded."

The other cited section (col 5, line 66 through col 6, line 2) refers only to the covering of the embedded attachment means during the first molding step:

"... at least said greater surface area of said attachment means being covered over with a portion (20) of said molded plastic first material, said attachment means including one or more inconspicuous attachment elements (12, 13)."

It was understood from discussion during the interview that the Examiner felt that the single plastic injection in the single molding step of Ackeret could be viewed as being two steps: (a) when plastic flowed into the mold behind the metal surface and (b) when plastic covered the sub-surface "attachment means."

Although it is not agreed that the single injection of plastic in Ackeret (which would typically take place in a fraction of a second) would teach or suggest two separate molding steps as required in Applicants' process, the Examiner believed that the Ackeret reference is even more clearly distinguishable if Applicants' Claim 7 is clarified to more clearly reflect that the second step, edge-covering component is molded onto the substrate component. With or without this clarification of Claim 7, according to Applicants' claimed process, it can clearly be seen that an edge covering component is molded onto the substrate and surface material edge area in a second, separate molding step. This is obviously much different and greatly improved over the process of Ackeret since Applicants' claimed process allows:

- defined location of the molded edges that "frame" the surface material,
- consistent thickness of the over molded edges, and
- independent selection of the substrate and edge-molding materials to provide desired functional and aesthetic effects

Therefore, regarding Applicants' Claims 7 - 9 and 15 - 16 that are rejected as being anticipated by Ackeret, and also Claims 10 and 11, which are dependent from Claim 7 and rejected based on combinations with Ackeret, it is clear that there is no basis in Ackeret to maintain a rejection of Applicants' claimed two step molding process.

Claims 10, 12 and 14 are rejected under 35 USC 103(a) as being unpatentable over Ackeret in view of USP 6,165,404 to Savonuzzi ("Savonuzzi"). The Examiner maintains

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that it would have been obvious to use Savonuzzi's laminate as the sheet material in Ackeret's molding process in order to obtain a final article having a metal, wood or semi-rigid outer surface material. Applicants agree that a surface material along the lines of Savonuzzi's (i.e., generally flexible) requires a shielding or backing layer for use when being molded onto a plastic substrate. It is clear, however, that Savonuzzi does not teach or suggest the use of Applicants' claimed laminated layer structure (adhesive and protective layers) for a surface layer of metal, wood or similar semi-rigid material.

Upon a closer review of Savonuzzi, it can instead be seen that it would be *prima facie* unobvious to use its protective "shielding" layer with the thin metal surface layers of Ackeret, or any metal, wood or similar semi-rigid surface material. Looking at the teachings of Savonuzzi, it can be seen that, unlike the metal/wood/semi-rigid surface materials that are used in Ackeret or in Applicants' claimed process, the surface coverings of Savonuzzi are "generally flexible". See for example column 2, lines 45 through 53:

Then, it can also be seen that Savonuzzi's shielding layer is applied to these surface materials for the purpose of making the surface layer more rigid, a purpose that is associated solely with injection molding behind these types of generally flexible materials. See for example:

Col. 3, line 57 – Col. 4, line 5 – securely hold the flexible cover material in the mold and protect from impact/permeation of the injected substrate resin.

Col. 4, lines 45 – 49 – buffer the flexible surface material from wrinkling due to shrinkage of the substrate plastic.

Since the "shielding" layer and its stated purposes are not applicable for metal, wood or semi-rigid surfaces, there is no teaching whatsoever from Savonuzzi that a protective laminate layer should be used with these materials. The Examiner admits that there is no teaching in Ackeret to use a laminate structure or an adhesive layer for Ackeret's metal or similar surface materials. However, as distinguished from Ackeret, according to Applicants' invention, an adhesive layer was found to provide a better fixed, more durable, more uniform metal or wood surface over the substrate material. It was found however, that when molding the substrate onto a metal or wood surface layer having an applied adhesive layer, the adhesive was being displaced in some locations by the molten, injection molded

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resin. As a novel and inventive aspect of using the adhesive, the protective backing layer was added and provided a more improved surface.

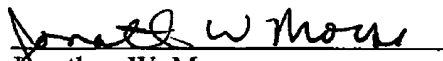
Due to the fact that there is no disclosed purpose in Savonuzzi for using the disclosed shielding layer for metal, wood or semi-rigid surface material and the fact that Ackeret does not teach or suggest using either an adhesive or a laminate structure for the metal surface materials, it is clearly impermissible hindsight to apply a combination of these two references to reject Applicants' claims. See for example *In re Rouffet et al*, 149 F.3d 1350, 1357; 47 USPQ2d 1453 (Fed. Cir., 1998)

To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the [**16] inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

The fact that these two references are concerned with a similar technical field does not provide the required motivation to combine their teachings to derive Applicants' novel and unobvious process for using an adhesive/protective layer laminate with metal/wood/semi-rigid surface materials. Even if they are combined, as the Examiner noted, there would only be a process according to Ackeret that would use the Savonuzzi surface materials. Upon application of the relevant standard to the present situation, it is clear that Applicants' claimed process according to Claims 10, 12, 13 and 14, based on an adhesive/protective layer laminate with a metal/wood/semi-rigid surface materials, is novel and inventive.

Therefore, it is believed that the present claims are currently in condition for allowance and their prompt allowance is courteously requested.

Respectfully submitted,


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